5B/6B-T, 3B/4B-T AND PARTITIONED 8B/10B-T AND 10B/12B TRANSMISSION CODES, AND THEIR IMPLEMENTATION FOR HIGH OPERATING RATES

Abstract of the Disclosure

Techniques are disclosed for translating five-bit source vectors into six-bit coded vectors. A sixth bit having a default value is appended to the source vectors. Selected one to three individual source bits are complemented for a minority of the plurality of source vectors. The coded vectors are either disparity independent with a single representation or disparity dependent with a primary and an alternate representation, where the alternate representation is a complement of the primary representation. Additional techniques are disclosed for translating three-bit source vectors together with one or more control inputs, into nine four-bit coded vectors. A fourth bit having a default value is appended to the source vectors. A single individual bit is complemented for a minority of source vectors. The coded vectors are either disparity independent with a single representation or disparity dependent with a primary and an alternate representation, where the alternate representation is a complement of the primary representation. 8B/10B and 10B/12B encoding techniques are also disclosed.